Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application. Changes are shown with deletions being designated by strike-through or double-brackets and insertion of new language being underlined.

Listing of Claims:

1. (Cancelled).

2. (Currently Amended) A computer-implemented method for scoring a severity of a neurological event associated with a nervous system disorder, the computer-implemented method comprising:

(a) determining using a processor that [[a]] one or more sensed neurological signals represents ~~at least one~~ a plurality of neurological events;

(b) identifying using a processor at least one feature of each of the ~~at least one~~ plurality of neurological events ~~to use in scoring~~, wherein the ~~at least one~~ plurality of neurological events [[is]] are selected from the group consisting of a detection cluster event and a reported event;

(c) computing using a processor a ~~score of~~ relative severity score[[of]] for each of the ~~at least one~~ plurality of neurological events using the ~~identified~~ at least one feature; and

(d) ranking using a processor the ~~at least one~~ plurality of neurological events by severity using the relative severity scores ~~to at least one other scored neurological event~~.

3. (Previously Presented) The method of claim 2, wherein the at least one feature identified in (b) is selected from the group consisting of a duration of a seizure detection, a spread, a number of clusters per unit time, a number of detections within a cluster, a duration of an event cluster, a duration of a detection, and an inter-seizure interval.

4. (Currently Amended) The method of claim 2, further comprising:

(e) communicating the ranked plurality of neurological events to an external device.

5. (Currently Amended) The method of claim 2, further comprising:

(e) displaying the ranked plurality of neurological events.

6. (Previously Presented) The method of claim 2, wherein the ranking in (d) is performed by an implanted device.

7. (Previously Presented) The method of claim 2, wherein the identifying the at least one feature in (b) comprises:

(i) using algorithm-based measures of activity of the nervous system disorder.

8. (Currently Amended) The method of ~~claim 5~~claim 2, wherein each of the ~~nervous system disorder~~ plurality of neurological events is a seizure and the computing the score in (c) comprises:

(i) relating duration, intensity, and extent of electrographic spread of the ~~nervous system disorder~~neurological event.

9. (Cancelled).

10. (Currently Amended) The method of claim 2, wherein the feature is selected from the group consisting of a number of monitoring elements involved in the neurological event, a number of clusters per unit time, a number of detections within a detection cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

11. (Currently Amended) The method of claim 2, wherein the computing the score in (c) comprises:

(i) computing a relative severity minimum, wherein the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous

system disorder activity ~~may be used to minimize~~ is useful for minimizing a probability of missing clinical events.

12. (Currently Amended) The method of claim 2, wherein the one or more sensed neurological signals [[is]] are received from a monitoring element and [[is]] are selected from the group consisting of a chemical signal, a biological signal, a temperature signal, a pressure signal, a respiration signal, a heart rate signal, a ph-level signal, and a peripheral nerve signal.

13. (Cancelled).

14. (Previously Presented) The method of claim 2, wherein the nervous system disorder is selected from the group consisting of a peripheral nervous system disorder, a mental health disorder, and a psychiatric disorder.

Claims 15-32. (Cancelled).

33. (Currently Amended) A computer-implemented method for determining the severity of a detection cluster comprising:

(a) determining using a processor that [[a]] one or more sensed neurological signals represent[[s]] a plurality of detection clusters;

(b) identifying using a processor at least one feature [[in]] of each of the detection clusters;

(c) computing using a processor a ~~score of~~ relative severity score[[of]] for each of the detection clusters using the identified at least one feature~~, wherein the computed score is selected from a range of at least three values including an upper value and a lower value~~; and

(d) ranking using a processor the plurality of detection clusters by severity using the relative severity scores~~to previously scored detection clusters~~.

34. (Previously Presented) The method of claim 33, wherein the at least one feature identified in (b) is selected from the group consisting of a spread of the detection cluster, a number of detection clusters per unit time, a number of detections within the detection cluster, a detection cluster severity, and an inter-seizure interval.

35. (Currently Amended) The method of claim 33, wherein the computing of the relative severity score in (c) comprises:

(i) computing a relative severity minimum, in which the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity ~~may be used to minimize~~ is useful for minimizing a probability of missing clinical events.

36. (Currently Amended) The method of claim 33, wherein the computing of the relative severity score in (c) comprises:

(i) allowing a user to exclude a certain event from being scored.

37. (Currently Amended) The method of claim 33, wherein (b)-(d) occur after [[the]] a respective detection cluster has ended.

38. (Currently Amended) A computer-implemented method for determining the severity of a detected neurological event comprising:

(a) receiving [[a]] one or more neurological signals;

(b) processing using a processor the one or more neurological signals to detect a plurality of neurological events;

(c) characterizing using a processor at least one feature of each of the plurality of detected neurological events; and

(d) computing using a processor a ~~score of~~ relative severity score [[of]] for each of the neurological events based on the at least one feature~~, wherein the computed score is selected from a range of at least three values including an upper value and a lower value~~.

39. (Currently Amended) The method of claim 38, further comprising:

(e) ranking the plurality of neurological events ~~relative to at least one other neurological event, the ranking~~ based on the relative severity scores for each of the neurological events.

40. (Currently Amended) The method of claim 39, wherein the at least one feature characterized in (c) is selected from the group consisting of a spread of [[the]]a detection cluster, a number of detection clusters per unit time, a number of detections within [[the]]a detection cluster, a detection cluster severity, and an inter-seizure interval.

41. (Currently Amended) The method of claim 39, wherein the computing in (d) comprises:

(i) computing a relative severity minimum, in which the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity ~~may be used to minimize~~ is useful for minimizing a probability of missing clinical events.

42. (Currently Amended) The method of claim 39, wherein the computing in (d) comprises:

(i) allowing a user to exclude a certain neurological event from being scored.

43. (Currently Amended) The method of claim 38, wherein (c)-(d) occur after [[the]] a respective detected neurological event has concluded.